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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,345	07/26/2001	Li Jia Hao	MR2349-358/DIV2	5663

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ROSENBERG, KLEIN & LEE
3458 ELLICOTT CENTER DRIVE-SUITE 101
ELLICOTT CITY, MD 21043

EXAMINER
ATKINSON, CHRISTOPHER MARK

ART UNIT	PAPER NUMBER
3743	

DATE MAILED: 05/08/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

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	5

DATE MAILED:

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

OFFICE ACTION SUMMARY

☑ Responsive to communication(s) filed on 4/19/02.

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 D.C. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☑ Claim(s) 1-17 is/are pending in the application.

Of the above, claim(s) 4, 6-7, 10, 13 and 16-17 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☑ Claim(s) 1-3, 5, 8-9, 11 and 14-15 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☑ The drawing(s) filed on 7/26/01 is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☑ Notice of Reference Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

-- SEE OFFICE ACTION ON THE FOLLOWING PAGES --

Response to Election

Applicant's election of species L as illustrated in Figures 12A-12C in Paper No. 4 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 4, 6-7, 10, 12-13 and 16-17 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made without traverse in Paper No. 4. Regarding claim 10, the elected species as illustrated in Figures 12A-12C does not have the guide region (21) installed within block (1).

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the primary element and the expanding area must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

Claim 1-3, 5, 8-9, 11 and 14-15 are rejected under 35 U.S.C. 112, second paragraph, as

being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In view of the plurality of claim errors listed below, it is requested applicant correct all claim errors. Regarding claim 1, the recitations "the overheat", "the liquid", "the fins", "the primary element", etc. lack antecedence; the recitations "which bubbles is", "to generate bubble", etc. are indefinite and appear to be grammatically incorrect; the phrase "or other elements" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention or not, and the resulting claim does not clearly set forth the metes and bounds of the patent protection desired; the recitations "a heat absorbing source", "a heat conducting block", etc. are indefinite since these recitations has previously been recited and it is unclear if applicant failed to provide proper antecedence or if applicant is claiming an additional source and block. Regarding claim 15, the recitation "the loops" lack antecedence.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
>
> Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention

was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 1-3, 9, 11 and 14-15 are rejected under 35 U.S.C. § 103 as being unpatentable over Okayasu ('790) in view of Larson et al. The patent of Okayasu discloses all the claimed features of the invention with the exception of the loop being in a computer and the heat source being a CPU. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have more than one loop, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

The patent of Larson et al. discloses that it is known to heat a looped heat pipe cooling a CPU within a computer for the purpose of compactly cooling an electronic device within a computer. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ the heat pipe of Okayasu within a computer to cool a CPU for the purpose of compactly cooling an electronic device within a computer as disclosed in Larson et al.

Claim 5 is rejected under 35 U.S.C. § 103 as being unpatentable over Okayasu in view of Larson et al. as applied to claims 1-3, 9, 11 and 14-15 above, and further in view of von Cube et al. The patent of Okayasu as modified, discloses all the claimed features of the invention with the exception of a blower.

The patent of von Cube et al. discloses that it is known to have a blower attached to a

finned radiator for the purpose of enhancing the heat transfer away from the radiator. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Okayasu as modified, blower attached to the finned radiator for the purpose of enhancing the heat transfer away from the radiator as disclosed in von Cube et al.

Claim 8 is rejected under 35 U.S.C. § 103 as being unpatentable over Okayasu in view of Larson et al. as applied to claims 1-3, 9, 11 and 14-15 above, and further in view of Pai The patent of Okayasu as modified, discloses all the claimed features of the invention with the exception of a spiral wire being the bubble generator.

The patent of Pai discloses that it is known to have a spiral wire being a bubble generator and a wicking device for the purpose of enhancing boiling within the heat pipe and wicking of the working fluid within the heat pipe. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Okayasu as modified, a spiral wire for the purpose of enhancing wicking and boiling of a working fluid within a heat pipe as disclosed in Pai.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Atkinson whose telephone number is (703) 308-2603.

C.A.
June 17, 1998

CHRISTOPHER ATKINSON
PRIMARY EXAMINER